

rufous brown : quills and tail feathers more saturate : wing coverts with large buff drops at the end of each plume : remiges and rectrices, internally dusky : the 4 or 5 first quills of the wings paled at their bases on the inner web : lining of wings, mixed buff and dusky : forehead, face, neck, and body, below, brownish rusty, picked out on the under tail-coverts with blackish, and deepened on the thighs and sides into fulvous brown : nape and dorsal neck, dull azure or verditer blue : chin frequently hoary : behind each ear a triangular black spot, united anteally by a gular band of the same hue : iris, brown : bill, dusky above, fleshy towards the commissure and inferior base : legs, ruddy flesh color : nails, horny white : size 9 to 10 inches by 15, and 5 to 6 oz. in weight.

N. B. Sexes essentially alike, but the female paler ; her gular band broken or interrupted ; and her wing coverts frequently unspotted. The males, too, want these spots, except when they are in full plumage : the bright brownish rusty hue of their forehead cheeks, and body below, fades to a fulvous or dull fawn color in winter : and the tail coverts are then immaculate. The lower belly and vent are paler than the breast, and frequently albescent.

V.—Description of three new species of Woodpecker.

By B. H. HODGSON, Esq.

HUMBOLDT asserts and SWAINSON repeats that there are no such forests, or native tenants of the forest, as those of the New World. But he who has tracked the wild elephant and bison through the colossal avenues of the Saul (*Shorea Robusta*), or the *Ghóral* and *Jhíral**, through those of the *Deodár* (*Pinus Deodara*) of India, may perhaps be permitted to doubt this. If the forests of America are ‘lofty and interminable,’ so are those of the sub-Himálayan mountains, from the skirts of the Gangetic plain to the very edge of the perennial snows. The zoological treasures of India may be less celebrated than those of *America—carent quia vate sacro*—but it is by no means probable that they are less worthy of celebration. SWAINSON’S observation, above referred to, has reference more especially to the Woodpecker tribe ; in respect to which he avers that the pre-eminently typical species are exclusively American. But this is a mistake : the sub-Himálayan forests afford several such species, one of which rather exceeds, than falls short of, the famous ivory bill (*Picus principalis*) of *America*. My collection of Nipalese Woodpeckers already embraces 16 species, which exhibit every known modification of form. I propose at present to describe the most powerful and the

* *Capra Quadrímammis*, nobis, and antelope *Goral*.—HARDWICKE.

feeblest of these, as well as one intermediate species ; beginning with the largest and ending with the least.

PICIANÆ. Genus *Picus Auctorum*, sub-genus *Picus*, SWAINSON. Species new. *Picus Sultanus*, Royal Indian Woodpecker, nobis.

This noble bird, facile princeps among the oriental Woodpeckers, and second to none in the world in size, strength, and typical attributes, is 15 inches long by 23 wide, with a weight of from 8 to 9 ounces.

Form. Bill $2\frac{1}{2}$ inches long, a third longer than the head ; at base higher than broad ; the ridges sharp and straight ; the sides strongly angulated ; the tip perfectly wedged : extremely powerful and hard throughout : great lateral angle of the maxilla, extending centrally from the base three-fourths to the tip, where it is taken up by two smaller angles proceeding ascendantly to the cuneate point, and serving as ribs to fortify it* : lower mandible with the sides subangulated after the manner of the upper ; its point similarly wedged, but with only one terminal rib instead of two. Nares, elliptic, lateral, closed superiorly by the ledge of the great lateral angle of the bill ; vaguely membraned, and more or less free from the nuchal tuft of plumes : orbits, nude : head, large and broad with a pointed crest : neck, slender and uncrested : tarsi longer than the anteal, shorter than the postal, outer toe : the latter toe conspicuously the longest : the grasp extremely oblique, with the two hinder toes directed laterally outwards, and capable of being brought to the front. Talons very falcate, acute, and angulated beneath near the tips : wings, medial, reaching nearly to the centre of the tail : 5th quill longest : 4th and 6th sub-equal to it : 1st, three inches, and 2nd, one inch less the 5th : primaries plus the tertiaries, one inch. Tail, extremely strong, moderately wedged : the six central feathers with the shafts bent inwards, and the webs very spinous ; the laterals similar but less strong ; the tips of the whole bifurcate.

Color. Top of the head and lower back, carmine : upper back and wings, externally golden yellow : band from the eyes round the forehead, ruddy brown : neck, from the eyes, laterally, black ; anteally and posteally, white, with five black gular stripes on the anteal aspect : breast black with large central drops of white, more or less brunescent : rest of the body below, and lining of the wings, white, transversely barred with black : rectrices and their upper coverts, pure

* In no other species have I noticed more than one sub-terminal lateral angle ; nor is there any other, with the power this possesses, of directing the whole of the toes to the front. The better to shew the pre-eminence of this species, I will add to my paper the description of another belonging to the same sub-genus. See *Pyrrhotis* in the sequel.

black : wings internally, and the primaries wholly, blackish, with 3, 4, or 5 ovoid white spots, ranged barwise across the inner webs of all the feathers :—Female, the same ; save that her cap is black, with a white drop on each plume : bill and legs slaty, with a greenish or yellowish smear : nails dusky : iris, carmine in the male, orange-red in the female : orbital skin, green in both : 15 inches long by 23 wide, and 8 to 9 oz, in weight.

N. B. The young at first resemble the female, and the males do not assume their perfect plumage till the second or third year. Black is the prevalent *under-color* of the species, and may be seen, unmixed, beneath the carmine crest of the males, and mixed with white, disposed barwise, beneath the carmine of their lower backs. This species breeds once a year, in May. It moults also but once, between June and October, both inclusive. There is another Nipalese species scarcely distinguishable from this by colors, and which has been confounded with it by those who venture to describe from one or two dried specimens. The two species differ, however, *toto cælo* in all typical and characteristic respects.

Sub-genus DRYOTOMUS. Species new : *Flavigula*, yellow throat, nobis.

Form. Bill $1\frac{3}{4}$ inch, a fourth longer than the head ; at base as broad as high, and soft in the lower mandible ; the ridges scarcely straight or acute ; and the tips very imperfectly wedged : great lateral angles of the maxilla, short and raised to the level of the culmen, giving the latter towards the base of the bill a character of flatness and breadth observable in no other sub-genus : nares shaped as in the preceding, but unprotected above by a corneous ledge, and usually quite hid by the nuchal tuft : orbits, nude : head, less broad and not crested : neck fuller, shorter, and, with the nape, crested posteally : tarsus rather longer than the anteal outer toe, which is distinctly larger than the posteal one : the grasp almost direct ; and the two posterior toes wholly incapable of being brought to the front, or even of acting laterally : talons powerful as in the last and similarly angulated beneath : wings and tail with the general characters of the last ; only rather more elongated and the latter feebler : 5th quill longest : 1st, $3\frac{1}{4}$, and 2nd, $1\frac{1}{4}$ inches less the 5th : primaries plus tertiaries $1\frac{1}{4}$ to $1\frac{1}{2}$ inch : tail much pointed and conspicuously wedged.

Color. Above brilliant parrot-green, duller on the top of the head, and merged in brown on the forehead : back of the neck, glossy silken yellow : chin and throat, pale greenish yellow : neck, to the front and sides, black green, picked out with pure white, which co-

lor occupies the bases of the plumes : body below, slaty grey with a green smear : wings internally, and the primaries wholly, igneous cinnamon, with five or six blackish cross bars occupying both webs of the primaries, but the inner webs only of the secondaries and tertiaries : tips of the primaries, black brown : rectrices, pure black : lining of the wings, whitish with black bars—the ground color tinged with the proximate lines : the bill, white with a plumbeous base : feet, plumbeous or slaty blue : orbital skin, green : sexes alike : immature birds have the chin and throat brown like the forehead : 14 inches long by 21 wide, and 6 to 7 ounces in weight.

YUNXINÆ*.

Genus or sub-genus new. *VIVIA*, nobis. *Wee-wee* of the Nipalese.

Generic character :—

Bill shorter than the head, straight, conical and acuminate : tip of the upper mandible, sub-wedged—of the lower, pointed.

Nares rounded, and hid by the nuchal tufts. Wings to middle of tail ; 1st quill and sub-bastard, 2nd long, 5th longest ; all entire : primaries longer than tertiaries, $\frac{1}{4}$ inch.

Tail medial, soft, 12†, the six centrals, even : the six laterals, extremely gradated : tongue and feet *picine* ; the anterior and posterior outer toes equal to each other and to the tarsus.

Species new. *V. Nipalensis* ; Nipalese *Vivia*, nobis.

Form, has been accurately described in the generic character.

Color. Above, greenish yellow, darker and duller on the head, dorsal neck, and ears : below, white, tinged with yellow, and ocellated from the chin to the breast—cross-barred thence to the tail, with black : two white lines down each side the head and neck, from the bill to the shoulders, enclosing the eyes and ears between them : frontal zone, pale and yellow : rectrices, the two central, black on one web, white on the other ; the four next wholly black ; the rest paled on the outer webs and tips : wings, dusky brown internally, and void of bars ; towards the base paled : males with a chesnut forehead, dotted with black : females with a saturate green forehead, concolorous with the upper surface of the head and neck : sexes of same size : 4 inches long by $7\frac{1}{2}$ wide, and $\frac{1}{2}$ an ounce in weight.

Remarks. These singular little birds are clearly distinguishable from the genus *Yunx* (*Auctorum*) by their *Picine* tongue and by the

* With the general reader no apology will be necessary for describing the following little bird as a Woodpecker. The *Yunxinæ* sub-family can hardly boast a generally-admitted independence.

† All the 12 are ranged in regular series, without any sign of the anomalous disposition noticeable in the extreme laterals of all the *Picianæ*.

structure of their wings, which also assimilates them with several of the smaller species of Woodpeckers. Whether they ought to be ranged under the genus *Picumnus* of TEMMINCK, I have no means of ascertaining. I leave my proposed new genus or sub-genus to the discretion of the skilful, who have access to the libraries and museums of Europe.

PICIANÆ*.

Sub-genus *Picus*, SWAINSON. Species new. *Pyrrhotis*; crimson-eared, nobis.

Form. Bill two inches long, a third longer than the head: extremely powerful and hard throughout: at base higher than broad: the ridges sharp and straight: the sides strongly angulated: the tips perfectly wedged: great lateral angle of the maxilla extending centrally three-fourths to the tip, where it is taken up by a single cuneating angle: lower mandible not angulated like the upper in its body, but similarly so towards its cuneate point: nares and head as in *Sultaneus*, but the latter not crested: neck neither elongated nor slender; void of crest: tarsi sub-equal to the anteal outer toe, which is rather larger than, or equal to, the postal one: grasp rather oblique, the postal toes being directed obliquely outwards, but incapable of reversion to the front: talons powerful, but only sub-angulated beneath: wings medial, reaching to middle of tail, gradated and formed, as in *Sultaneus*: tail rather short, very moderately wedged; in structure similar to that of *Sultaneus*: orbits nude.

Color and size. Wings, lower back, and tail, dark cinnamoneous or chesnut red, transversely banded with black throughout: head, neck, and upper back, brown, merged more or less in dark vinous red; the forehead and chin paler, and greyish: the breast and body below, black brown, with narrow chesnut bars on the thigh and tail-coverts: behind each ear a brilliant crimson spot: bill, bright yellow: orbital skin, dusky green: iris, brown: legs, dark slaty, smeared with green or yellow: nails, dusky horn: sexes alike: 12 inches long by 18 wide; and 5 to 6 oz. in weight.

Remark. Though I have ranged this bird under SWAINSON'S sub-genus *Picus*, the curious reader will observe that it does not wholly answer the definition of the group. It belongs, in fact, by its bill to *Picus*—by its feet to *Chrysoptilus*: and, strictly speaking, stands midway between the two sub-genera. The two exterior toes are, as nearly as may be, equal; but the bill is neither depressed nor are the great lateral angles of the maxilla unequal. My principal motive

* See the note on *Sultaneus* for the cause of this addendum.

in adding it to this paper is (as already stated) to afford an object of comparison with the kingly species which is first described under the oriental imperial style of *Sultaneus*.

And, now that I have exceeded the limits originally proposed, I may as well add the description of another species forming a complete link between the three and four-toed *Piciana*.

Genus MALACOLOPHUS ?

Sub-genus ?

Species new. *Melanochrysos* ; golden and black Woodpecker, nobis.

Form. Bill $1\frac{1}{2}$ inches long, scarcely one-fifth longer than the head, at base as high as broad, neither compressed nor depressed ; ridge arcuated and acute, but not carinated ; great lateral angles obsolete ; tips faintly cuneated.

Nares, elliptic, void of corneous ledge above, more or less denuded of plumes. Wings medial, to middle of tail : 1st quill, sub-bastard ; 2nd, long ; 4, 5, and 6, sub-equal, and longest. Tail, medial, equally gradated throughout, straight, rather feeble ; tips of all its feathers pointed, or evanescently forked : tarsi, longer than the anteal outer toe, which is conspicuously larger than the posteaal : the inner, small but perfect, and furnished with a perfect nail : grasp not oblique : orbits nude : head with a full soft crest, more or less pointed at the occiput : neck simple*.

Color and size. Chin, throat, abdominal aspect of the neck and the breast, black : neck, posteally, black : lores, cheeks and lateral aspect of neck, white : ears, black, in a broad stripe from the eyes : upper back and wings, golden yellow : shoulders, dusky : lower back, tail-coverts above, and tail, black : wings internally, the same : body below, white : cap, in the males, bright sanguine ; in the females, black, with white streaks : bill, slaty black : iris, brown : orbital skin, dusky green : legs, clearish green : talons, dusky : $11\frac{1}{2}$ to 12 inches by 18 : $4\frac{1}{2}$ ounces.

Remarks. This species in size, colors and characters, bears much resemblance to the *Picus Shorii* of GOULD'S work, in which, however, the fourth digit is nailless and obsolete, the rump, crimson, and the neck and belly, as in our *Sultaneus*.

I have other species serving to unite the 3 and 4-toed Woodpeckers by an insensible gradation. These species are closely connected with the well known *Picus Viridis* and *Picus Canus* of Europe.

* The tips of the lesser quills offer no peculiarity of structure, either in this or the preceding species.